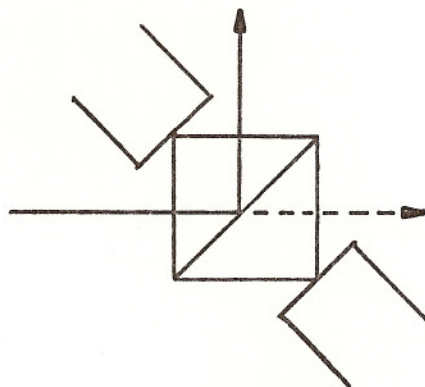


Transmission  
of barriers

(L-2 S-3)

Laser (L-2 S-3)



Set vise so that the laser beam will be normal to a short face of the prisms and so that the internal reflection will be toward the chalk board. Show the students the prisms and put them into the vise with the jaws slightly loose.

Show that total internal reflection occurs by aiming the laser toward the far end of the chalk board and noting the reflected beam at the near end of the board. Gradually and cautiously increase the pressure of the vise until a discernible amount of transmission occurs as evidenced by the appearance of a spot at the far end of the board. Be sure to point out that the air film is still there because most of the intensity remains in the reflected beam.

The pressure may be increased slightly more, with great caution, to show the increase of transmitted intensity and, with careful attention, a small reduction in the reflected intensity.

**NOTE:** Relieve the pressure at the end of the demonstration.